



More information about the New Bus for London

Dimensions

The bus will be 11.2m long, 2.55m wide and 4.4m tall. The target unladen weight is approximately 11.8 tonnes. The turning circle is approximately 21.1m, which is compatible with bus stops, stations and depot layouts.

Capacity

The bus will have an overall capacity of 87. There will be 22 seats on the lower deck (including four priority seats and six preferential seats for passengers with reduced mobility), one wheelchair bay and space for 25 standees. There will be 40 seats on the upper deck. This capacity is comparable to existing double deck buses.

Staircases

There will be two staircases on the new bus enabling easier and quicker access to and from the upper deck. The rear staircase will incorporate a landing half-way, to enable passengers to rest on their way up or down.

Doors

The bus will have three passenger entrances at all times. There will be two conventional doors and one open rear platform.

Windows

The windows on the upper deck will be slightly narrower than on current double-deckers, and will be of the same proportions as the old Routemaster. The smaller window area in the upper deck will help reduce the “solar gain” heating effect, whilst still giving passengers a good view out. The window “swoop” at the rear and offside emphasises the function of the two staircases and helps visually to connect the two decks. All windows will be flush mounted with the bodywork and will have an anti-glare tint.

Lighting

The principal driving and running lights will be powered by long-life low energy LED bulbs, whilst the interior lighting will also use individual low energy bulbs providing a superior lighting environment for seating areas and circulation areas.

Accessibility

Ten easy access seats are provided on the low flat floor area for passengers with reduced mobility, four specifically designated as ‘priority’ seats, with space underneath for assistance dogs. The bus also includes a wheelchair bay, which is significantly larger than the minimum standard.

Platform

Although the open platform will be a key feature, there will be a facility to allow it to be closed by a door at certain times. This would allow the bus to be operated by the driver only, yet still retain the versatility of three entrances.

Green technology

The bus boasts a diesel-electric hybrid drive system using a modern, high performance, low emission diesel engine as the power source. This engine drives a generator which supplies energy to a lithium-phosphate battery pack, which in turn provides electrical current for the new electric drive motors. Regenerative braking feeds otherwise wasted kinetic energy back into the battery pack from the electric motors. With greater fuel efficiency than existing hybrid buses and 40 per cent more efficient than conventional diesel double-deckers, the bus was very much designed with the environment in mind.

It is expected the bus will have a fuel consumption of approximately 28 litres per 100km (equal to 10mpg). This is nearly 40 per cent better than a current conventional diesel double deck bus and some 15 per cent better than existing hybrid double-deckers.

The corresponding CO₂ emissions will be around 750g/km per bus. Current conventional diesel double-deckers emit approximately 1,200g per km per bus.

- Air quality emissions will be reduced as follows:
 - o NOX = 40 per cent reduction over conventional diesel buses
 - o PM = 33 per cent reduction over conventional diesel buses
- Road side drive-by noise levels will improve on the current legal minimum by up to 4dB(A) - which is a reduction of more than half the noise energy.

Cost

The current generation of hybrid buses cost around £300k each and the unit cost of the new bus once in full scale production is not expected to be significantly more. Most advances in technology need investment at the outset and funding a new bus for London is no exception. TfL is funding the design and development phase and the project represents good value for money when you consider the benefits that the new bus will bring in terms of fuel economy and lower emissions. Some of the new technology benefits will be of great benefit for generic bus design and hence benefit a wider market.

Number of buses entering service

The number of buses will be dependent on the routes chosen for conversion, and this has not yet been decided upon. The buses are likely to operate on busy central London bus routes. We fully expect eventually to have several hundred of these buses on the streets of central London.